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CLAIMS

- A pharmaceutical composition comprising a nucleic acid molecule encoding a tumor-associated antigen and at least one peptide comprising a region corresponding to a putative cytotoxic T cell, helper T cell or B cell epitope of a tumor-associated antigen and/or cells pulsed with such peptide(s).
- The pharmaceutical composition of claim 1 wherein the tumor-associated antigen encoded by the nucleic acid molecule is heterologous with respect to the species to which the individual belongs to whom the pharmaceutical composition shall be administered.
- The pharmaceutical composition of claim 1 or 2, which is for administration to humans and in which the nucleic acid molecule encodes a non-human tumorassociated antiqen.
- 4. The pharmaceutical composition of any one of claims 1 to 3, in which the nucleic acid molecule encoding the tumor-associated antigen is under the control of the CMV early promoter.
- 5. The pharmaceutical composition of any one of claims 1 to 4, in which the nucleic acid molecule is a double stranded circular or linear molecule.
- 6. The pharmaceutical composition of any one of claims 1 to 5, in which the nucleic acid molecule is paked DNA
- 7. The pharmaceutical composition of any one of claims 1 to 6, wherein the tumor-associated antigen is a gp100 protein.
- 8. The pharmaceutical composition of claim 7, in which the peptide(s) comprise(s) at least one of the following amino acid sequences:
 - (i) KTWGQYWQV (SEQ ID NO:5);
 - (ii) ITDQVPFSV (SEQ ID NO:6);

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- (iii) VLYRYGSFSV (SEQ ID NO:7); and
- (iv) KTWGKYWQV (SEQ ID NO:8).
- 9. The pharmaceutical composition of any one of claims 1 to 8, which comprises more than one peptide comprising a region corresponding to a putative cytotoxic T cell, helper T cell or B cell epitope of a tumor-associated antigen, said peptides having the same or different amino acid sequences.
- 10. The pharmaceutical composition of any one of claims 1 to 9, which is for the administration to humans and in which the peptide(s) is (are) derived from a non-human tumor-associated antigen.
- 11. The pharmaceutical composition of any one of claims 1 to 10, in which the peptide-pulsed cells are dendritic cells.
- The pharmaceutical composition of claim 11, wherein the dendritic cells are derived from the same individual to whom the pharmaceutical composition shall be administered.
- 13. Use of a nucleic acid molecule encoding a tumor-associated antigen in combination with at least one peptide comprising a region corresponding to a putative cytotoxic T cell, helper T cell or B cell epitope of a tumor-associated antigen and/or cells pulsed in vitro with said at least one peptide for the preparation of a pharmaceutical composition for the treatment or prevention of cancer.
- 14. The use of claim 13, wherein the tumor-associated antigen is a gp100 protein and the cancer is melanoma.